

**Commonwealth of Kentucky
Division for Air Quality**

PERMIT APPLICATION SUMMARY FORM

Completed by: Ralph Gosney, P.E.

GENERAL INFORMATION:

Name:	Dart Polymers, Inc.
Address:	2400 Harbor Road Owensboro, Kentucky 42301
Date application received:	12/5/2005
SIC Code/SIC description:	2821, Plastics Materials, Synthetic and Resins, and Nonvulcanizable Elastomers
Source ID:	21-059-00131
Source A.I. #:	895
Activity ID:	APE20050002
Permit:	V-06-046

APPLICATION TYPE/PERMIT ACTIVITY:

<input type="checkbox"/> Initial issuance	<input type="checkbox"/> General permit
<input type="checkbox"/> Permit modification	<input type="checkbox"/> Conditional major
<input type="checkbox"/> Administrative	<input checked="" type="checkbox"/> Title V
<input type="checkbox"/> Minor	<input checked="" type="checkbox"/> Synthetic minor
<input type="checkbox"/> Significant	<input type="checkbox"/> Operating
<input checked="" type="checkbox"/> Permit renewal	<input checked="" type="checkbox"/> Construction/operating

COMPLIANCE SUMMARY:

<input type="checkbox"/> Source is out of compliance	<input type="checkbox"/> Compliance schedule included
<input type="checkbox"/> Compliance certification signed	

APPLICABLE REQUIREMENTS LIST:

<input type="checkbox"/> NSR	<input checked="" type="checkbox"/> NSPS	<input type="checkbox"/> SIP
<input type="checkbox"/> PSD	<input checked="" type="checkbox"/> NESHAPS	<input type="checkbox"/> Other
<input type="checkbox"/> Netted out of PSD/NSR	<input type="checkbox"/> Not major modification per 401 KAR 51:001, 1(116)(b)	

MISCELLANEOUS:

- ☐ Acid rain source
- ☐ Source subject to 112(r)
- ☒ Source applied for federally enforceable emissions cap
- ☐ Source provided terms for alternative operating scenarios
- ☒ Source subject to a MACT standard
- ☐ Source requested case-by-case 112(g) or (j) determination
- ☐ Application proposes new control technology
- ☐ Certified by responsible official
- ☐ Diagrams or drawings included
- ☐ Confidential business information (CBI) submitted in application
- ☐ Pollution Prevention Measures
- ☐ Area is non-attainment (list pollutants):

EMISSIONS SUMMARY:

Pollutant	Actual (tpy)	Potential (tpy)
PM/PM ₁₀	0.699 / 0.423	5.68/5.68
SO ₂	0.0846	0.34
NO _x	15.780	56.83
CO	3.072	47.73
VOC	70.556	2,325.35
Single HAPs	1.003 (Styrene)	49.266 (Styrene)
Source wide HAPs	1.449	50.32

SOURCE DESCRIPTION:

Dart Polymers, Inc. (Dart) owns and operates a polystyrene beads and pellets manufacturing plant and an impregnation facility in Owensboro, Kentucky. This source is a major source for VOCs and HAPs. The primary activity at the Owensboro facility is the polymerization of polystyrene, which falls under the SIC code of 2821. There are three primary production processes at the facility including Polystyrene Pellets (Plant 1 - Mass Plant), Impregnated Polystyrene Beads (Plant 2 - Impregnation Plant), Polystyrene Beads (Plant 3 - Suspension Plant).

The potential to emit, as defined in 401 KAR 52:001, Section 1 (56) of volatile organic compounds (VOC) as a regulated air pollutant is greater than one hundred (100) tons per year; and the potential to emit of single and combined hazardous air pollutants (HAPs) is greater than 10 and 25 tons per year, respectively. Therefore, the source is a major source and is subject to the provisions of 401 KAR 52:020. The original Title V Permit No. V-00-003 was issued on June 4, 2001 to this source. This is a Title V renewal permit issued for this source.

EMISSIONS AND OPERATING CAPS DESCRIPTIONS:

- (a) This source elected to accept the following emission limits in order to preclude the applicability of 401 KAR 51:017, *Prevention of Significant Deterioration of Air Quality* (PSD) for volatile organic compounds (VOC) as permitted in Minor Permit Revision, Log # 55337/55642, issued on December 19, 2003.

The total VOC emissions from the modification to Plant 2 – Impregnated Polystyrene Beads Production (EP 10) involving the de-bottle necking project (defined as MODIFICATION 01 (emission units 2, 3, 5 and 6) under permit Section B for EP 10) shall not exceed 10.51 tons per twelve (12) consecutive month period based on the Carbon Adsorber VOC emissions control efficiency of 95%. The VOC emissions shall always be vented to the Carbon Adsorber in order to comply with the emission limit.

- (b) This source elected to accept the following emission limits in order to preclude the applicability of 401 KAR 51:017, *Prevention of Significant Deterioration of Air Quality* (PSD) for volatile organic compounds (VOC) as approved upon issuance of this permit

Number V-06-046.

The total VOC emissions from the modification to Plant 2 – Impregnated Polystyrene Beads Production (EP 10) involving the Plant 2 expansion (defined as MODIFICATION 02 (emission units 7, 8, 9 and 10) under permit Section B for EP 10) shall not exceed 26.6 tons per twelve (12) consecutive month period based on the Carbon Adsorber VOC emissions control efficiency of 95%. The VOC emissions shall always be vented to the Carbon Adsorber in order to comply with the emission limit.

OPERATIONAL FLEXIBILITY:

None